

WHAT IS CLAIMED IS:

1. A digital video scrambler, comprising:
 - a parser for parsing the content of a digital-encoded input video stream to detect a header portion thereof,
 - a controller for generating a pseudo random-number, and determining a substituted-character position in said input video stream other than said detected header portion, using said pseudo random-number
 - a substitutor for performing a scramble processing of said input video stream by a character substitution processing at said determined position, and
 - an output unit responsive to said substitutor for outputting said scramble-processed video stream.
2. The digital video scrambler according to Claim 1, further comprising
 - an input unit for inputting information for specifying a scramble level corresponding to said inputted video stream,
 - an encryption key generator for creating a private key, and
 - an encryption unit for encrypting and outputting said inputted information by using said private key,
 - wherein said controller uses said information in addition to said pseudo random-number.

3. The digital video scrambler according to Claim 1, further comprising

an encryption parameter generator for generating a pseudo random-number to create a substitution table, and

said substitutor performs said character substitution processing by using said substitution table.

4. The digital video scrambler according to Claim 2, further comprising

an encryption parameter generator for generating a pseudo random-number to create a substitution table, and

said substitutor performs said character substitution processing by using said substitution table.

5. The digital video scrambler according to Claim 1,

wherein there are provided said substitutor in plural number, and said controller determines substituted-character positions each of which corresponds to each of said plural substitutors, and allocates said substituted-character positions to said plural substitutors.

6. The digital video scrambler according to Claim 2,

wherein there are provided said substitutor in plural number, and said controller determines

substituted-character positions each of which corresponds to each of said plural substitutors, and allocates said substituted-character positions to said plural substitutors.

7. The digital video scrambler according to Claim 3,

wherein there are provided said substitutor in plural number, and said controller determines substituted-character positions each of which corresponds to each of said plural substitutors, and allocates said substituted-character positions to said plural substitutors.

8. A digital video descrambler connected via a network to said scrambler according to Claim 1, said descrambler comprising:

a unit for acquiring said substitution-processed inputted video stream,

a parser for parsing said content of said inputted video stream to detect said header portion thereof,

a controller for generating a pseudo random-number based on a private key, and determining a substituted-character restoring position other than said header portion using said pseudo random-number, and

an inverse substitutor for performing a substituted-character restoration processing at said determined position.

9. The digital video descrambler according to Claim 8, further comprising
an output unit for outputting identification information via said network, and
a receiver for receiving said private key via said network, said private key being sent out as a result of an authentication based on said identification information.

10. A scramble program, comprising the steps of:
generating a pseudo random-number to create a substitution table, and holding said substitution table,

outputting said substitution table via a network,

acquiring an encoded video signal via an input unit,

parsing the signal of said encoded video signal,

determining whether or not to perform a character substitution to said signal, and

transforming said signal in accordance with said substitution table if it has been judged to perform said character substitution,

wherein a signal subsequent to said signal is read in, and said steps are repeated until said video signal has disappeared, a determination criterion as to whether or not to perform said character substitution being modified in correspondence with said parsed

result.

11. The scramble program according to Claim 10,
 wherein said substitution table is outputted
in a state of being encrypted, and further comprising
 a step of exchanging key information with a
computer at an output destination of said encoded
signal, said key information being necessary for
decrypting said encryption.

12. A descramble program, comprising the steps
of:

 acquiring, via a network, an encoded signal,
information on a cipher decryption, and information on
a substitution table used for said encoding,

 creating, from said information on said
substitution table, a substitution-decrypting table
corresponding thereto, and recording said substitution-
decrypting table into a record means,

 reading said signal, and parsing the syntax
for encoding said signal,

 judging whether or not to substitution-
decrypt said signal using said parsed result, and

 substitution-decrypting said signal that has
been judged to be substitution-decryptable using said
substitution-decrypting table,

 wherein a signal next to said read-in signal
is read in, and said steps are repeated.